

US EPA ARCHIVE DOCUMENT

Dioxins and Furans

Work Group Co-Chairs:

Anita Wong, Environment Canada

Erin Newman, U.S. EPA

Dioxins/Furans Challenges and Progress

Canadian Challenge Goal

- 90% reduction *
- by 2000

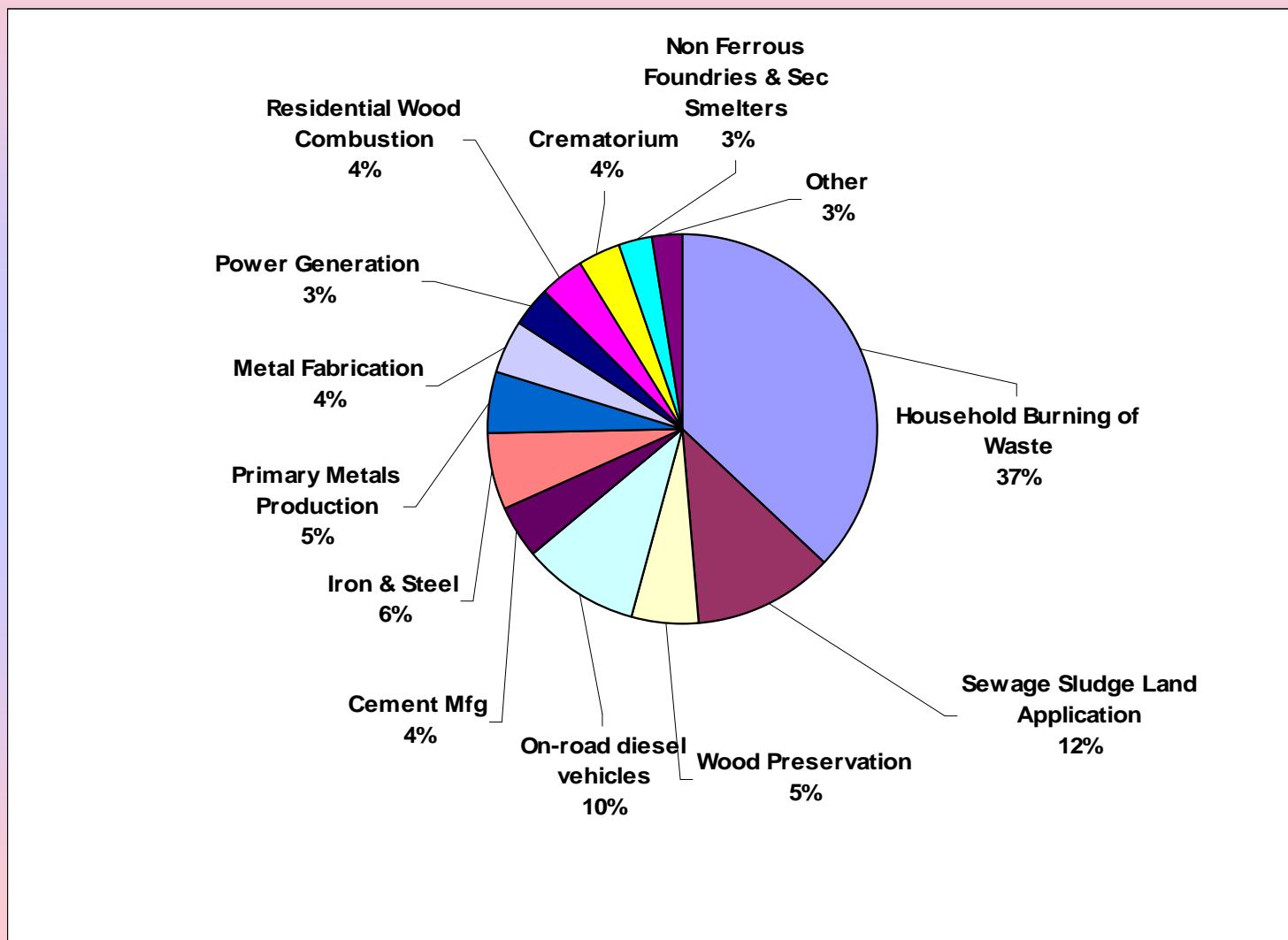
* All media within Great Lakes Basin, base year 1988

- Progress: **>90% reduction** in total releases within GL Basin

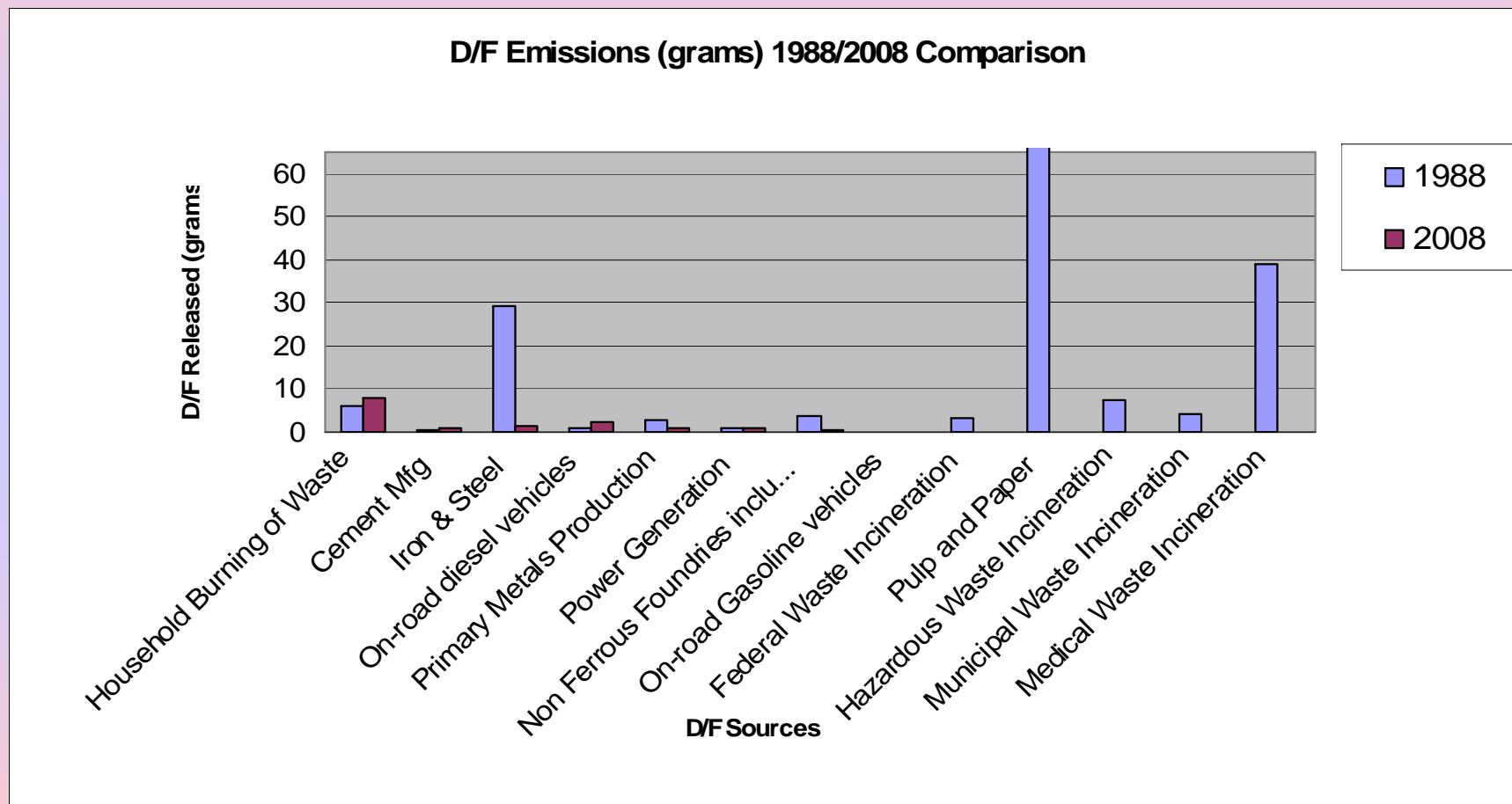
US Challenge Goal

- 75% reduction *
- by 2006
- Aggregate of air releases nationwide and water releases within the Great Lakes Basin, base year 1987
- Progress: Goal has been met
- 2000 emissions ~1,422 grams **89% reduction** from 1987 baseline

2008 Ontario Dioxins/Furans Release Profile



Ontario Dioxins/Furans Release Reduction (grams ITEQ/yr) 1988 – 2008



THE GREAT LAKES BINATIONAL TOXICS STRATEGY

Canada-wide Standards - 2009 Progress Report

Sector	Target	Status
Waste Incineration (Incl. MSW, medical, hazardous, sewage sludge)	MSW, Medical and Hazardous: By 2006 - 80 pg ITEQ/m ³ Sewage Sludge: By 2005 – 100 pg ITEQ/m ³	All incinerators achieved compliance except for a sewage sludge incinerator in Ontario. MOE worked with facility to develop an abatement strategy to be implemented by 2013.
Pulp and paper boilers burning salt laden wood	By 2006 – 500 pg ITEQ/m ³ New boilers – 100 pg ITEQ/m ³ (All located in BC)	Test results from all facilities showed compliance but large variations raised questions on true compliance.
Iron Sintering	By 2002 - less than 1350 pg/m ³ By 2005 - less than 500 pg ITEQ/m ³ By 2010 and new plants – less than 200 pg ITEQ /m ³	The last remaining iron sintering plant in Canada shutdown in 2007.
Steel Mfg Electric Arc Furnaces	By 2006 - less than 150 pg ITEQ/m ³ By 2010 and new plants - less than 100 pg ITEQ/m ³	All achieved compliance except for 1 facility in Ontario. Facility is making improvements to comply by 2010.
Conical municipal waste combustion	By 2008 phase out all combustors (All located in Newfoundland)	42 out of 58 CWC have closed down. Remaining 16 CWC expected to be closed by 2010.

Dioxins/Furans Global Modeling Status

- Multiple model scenario runs are set up to assess impact of dioxins/furans emissions (ITEQ and speciated) from:
 - ◆ the United States, East Asia (majority from China), India, Mexico and Europe on Canadian environment

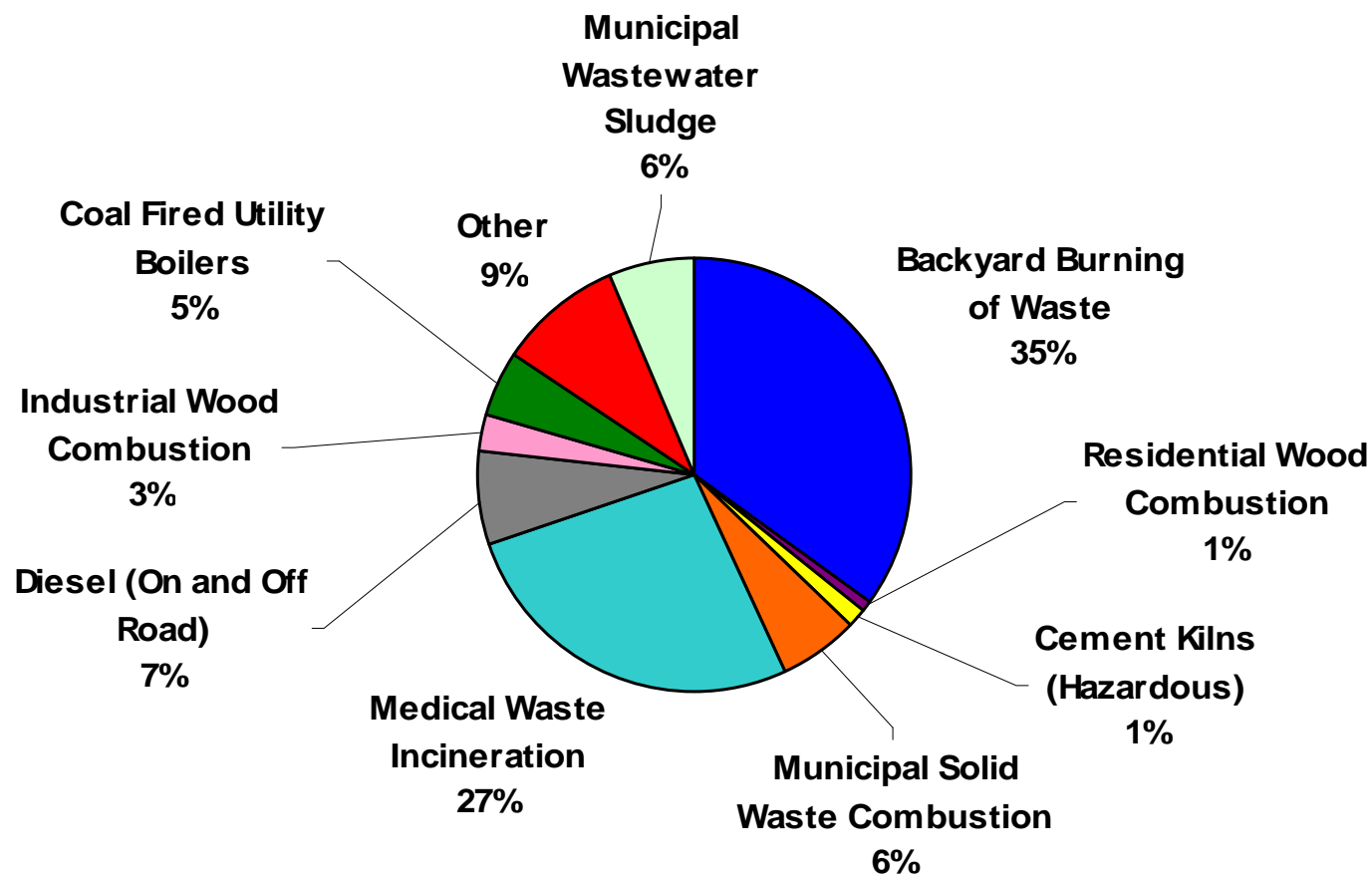
Some Preliminary results:

- East Asian emissions contribute most significantly to atmospheric level of dioxins/furans in Canada through trans-Pacific atmospheric transport, especially Western Canada.
- India emissions appear to exert stronger influence on the west coast of the US and Mexico than to Canada

Next steps:

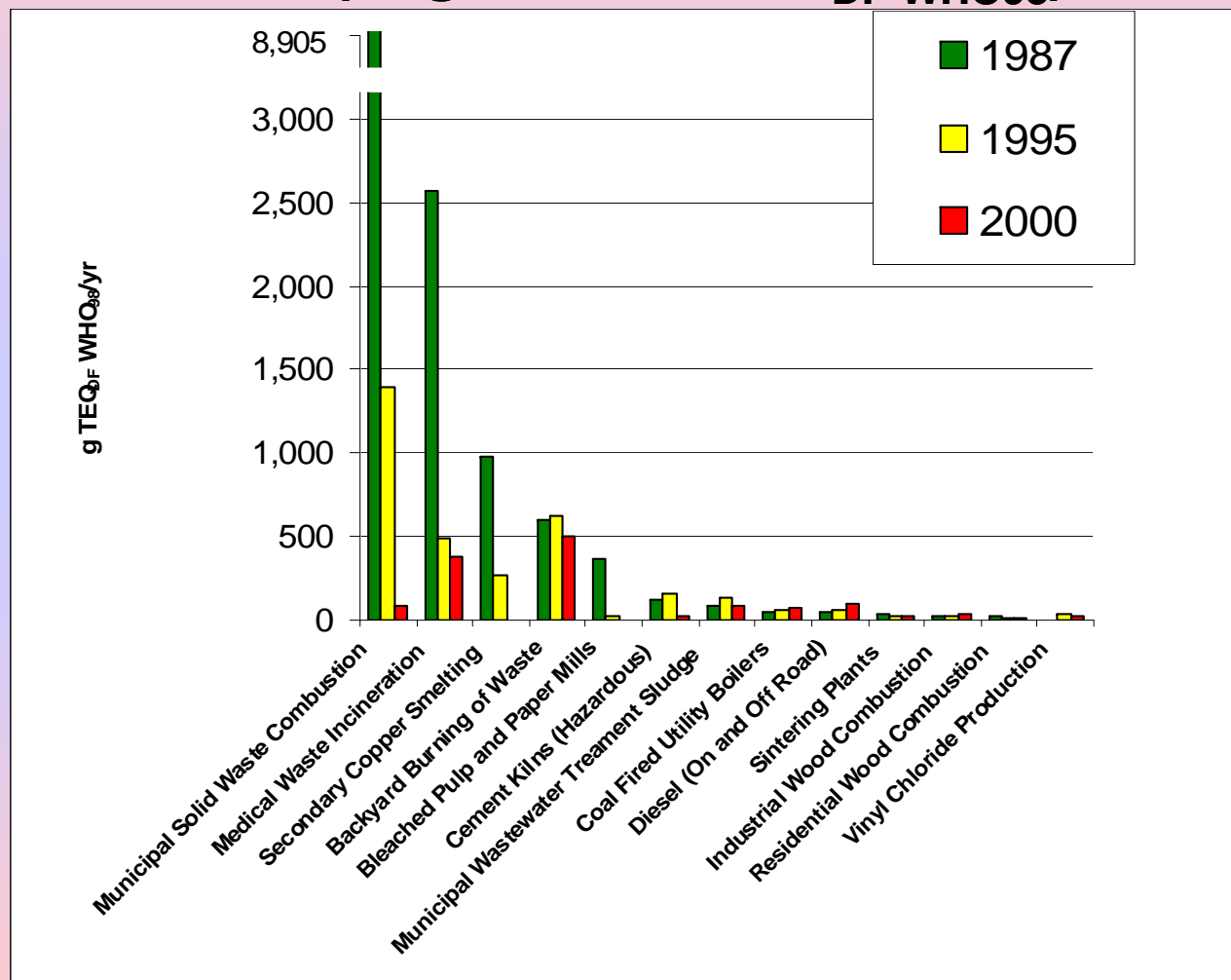
- Speciated dioxin/furan emissions inventory being developed (4 congeners) and more scenario modeling runs
- Modeling results are being evaluated
- Modeling project anticipated to complete by Spring of 2011
- Findings to be published in a peer reviewed journal
- Results to be presented at next meeting

2000 U.S. Dioxins/Furans Release Profile



THE GREAT LAKES BINATIONAL TOXICS STRATEGY

Top U.S. Inventoried Dioxin Emissions for 1987, 1995, & 2000 (in grams of TEQ_{DF-WHO98})



EPA's Dioxin Reassessment

- Widespread interest in the report.
- Particular issues raised about the cancer slope factor.
- Release will not be in 2010.

Burn Barrels - US



- Provided some assistance to local communities with outreach materials.
- Held one group teleconference
- NYSDEC doing statewide outreach on their open burning rule from 10/09.
 - ◆ Eliminates burn barrels, agricultural plastics burning and leaf burning statewide
- Michigan is proposing stricter amendments to its statewide open burning rule
- Renewed interest in agricultural plastics

Burn Barrels - Canada



- Attended Toronto Spring Cottage Life show providing information to the public on the impacts of this activity on the environment and health.
- Completed educational brochure “What Goes Up Must Come Down”. Reception to it has been excellent.
- Provided Webinar presentation to NGO groups and Outreach people within government departments on this subject .
- Continue to co-chair the Open Burning Working Group with the EPA.
- We will continue to provide information and advice to inquiries on residential wood burning
- We will look for ways to promote existing material to the public on the Open Burning file and assist where possible in improving the education of this issue.